

### **REMARKS**

Responsive to the Office Action mailed October 4, 2006, Applicants provide the following. Claim 13 has been amended to correct a typographical error. Twenty (20) claims remain pending in the application: Claims 1-20. Reconsideration of claims 1-20 in view of the remarks below is respectfully requested.

By way of this response, Applicants have made a diligent effort to place the claims in condition for allowance. However, should there remain any outstanding issues that require adverse action, it is respectfully requested that the Examiner telephone the undersigned at (858) 552-1311 so that such issues may be resolved as expeditiously as possible.

### **Claim Rejections - 35 U.S.C. § 103**

1. Claims 1- 20 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over published international PCT Application No. WO 01/06771 to Johnson et al. in view of U.S. Patent No. 6,137,546 to Shintani et al. Applicants respectfully traverse these rejections and submit that the combination of the Johnson reference and the Shintani patent fails to teach each limitation as recited in claims 1-20. More specifically, for example, the combination of the above references fails to teach all of the limitations as recited in at least independent claim 1. Claim 1, for example, recites in part:

A method for use in generating a television channel map, comprising:  
selecting a first input of a plurality of inputs;  
selecting a first single modulation scheme of a plurality modulation schemes on the first input;  
...  
not performing a full auto-program.

The combination of the Johnson reference and the Shintani patent fails to describe at least selecting a first single modulation scheme of a plurality of modulation schemes on the first input.

The Office Action suggests that “[t]he Johnson reference discloses that the system may only accept signals with particular characteristic (e.g. modulation scheme)” and further suggests that “the Shintani reference provides evidence that it is known to scan a first modulation scheme on a first input so as to reduce the auto program time” (Office Action, pg. 3). However,

the suggested combination does not result in at least selecting a first single modulation scheme of a plurality modulation schemes on the first input. The Johnson reference specifically states that:

the various signal inputs 16, 26, 28, and 30 may accept only certain signal sources. For example, signal input 16 may only accept DBS/Set-top box type television signal and thus only those channels that are typical of DBS/Set-top box signals. (Johnson, pg. 6, lns. 13-16).

The Office Action relies on this language as suggesting that “the system [of Johnson] may only accept signals with particular characteristic (e.g., modulation scheme)” (Office Action, pg. 2). The Johnson reference describes that a “channel search is performed only on the currently selected signal input of the television” (Johnson, pg. 2, lns. 25-26) where each signal input may receive a number of various signals (see at least Jonson, pg.4, lns. 26-29) from various sources or “only certain signal sources” (see at least Johnson, pg. 6, lns. 13-14). The office action admits that the Johnson reference “is silent with respect to scanning a first modulation scheme on a first input” (Office Action, pg. 2). As such, the Examiner further relies on the Shintani patent in suggesting that “it is known to scan a first modulation scheme on a first input” (Office Action pg. 3). However, the office action asserts that the Shintani patent describes a first modulation scheme on a first input and if, arguendo, one were to combine this assertion, specifically receiving a first modulation scheme (either NTSC or DTV) on a first input, with the Johnson reference, specifically accepting signals with a particular characteristic on a first input, the combination would result in the signal inputs 16, 26, 28, and 30 of the Johnson reference only accepting signals with a single modulation scheme on a first input, and thus, would not result in a plurality of modulation schemes on a first input as recited in claim 1.

Specifically, the signal inputs 16, 26, 28 and 30 would each receive signals of a “particular characteristic” (office action pg. 2). As such, the resulting combination would not describe a plurality of modulation schemes on a first input, and further would not suggest “selecting a first single modulation scheme of a plurality of modulation schemes on a first input” as recited in claim 1. Therefore, even if these references were combined, the combination fails to teach each limitation as recited in at least claim 1.

Additionally, one skilled in the art would not combine the Shintani patent and the Johnson reference because there is no motivation to combine the above references. The Examiner suggests that “[t]he Shintani et al. reference provides evidence that it is known to scan a first modulation scheme on a first input so as to reduce the auto program time” (Office Action, pg. 3), and as such, one would combine the Shintani reference with the Johnson reference to “reduce the autoprogram time.” The intended purpose of the Shintani patent is to map both NTSC and DTV channels and further describes that “the autoprogram routine 80 first maps NTSC channels in order to decrease the time required to autoprogram” (col. 4, lns. 42-43) and after mapping NTSC it maps the DTV channels. As such, the suggested motivation for combining the Johnson reference and the Shintani patent would only exist if the Johnson reference would map multiple modulation schemes on a single input which teaches directly away from selecting a first modulation scheme and mapping to the selected modulation scheme as claimed. Therefore, the motivation suggested by the Office Action for combining the above references is in error with respect to the suggested combination, specifically selecting a single modulation and not performing the full auto-programming.

Still further, arguendo, if hypothetically one assumes that each signal in the Shintani patent are received from a different input, the Shintani patent would teach away from being combined with the Johnson reference. Specifically, the Shintani patent is specifically directed to performing a channel mapping in this scenario of multiple inputs (assuming each signal is received on a separate input) while the Johnson reference attempts to allow the mapping to be limited to a single input. Therefore, combining Shintani with Johnson would go against the intended purpose of Johnson in restricting the mapping to a single input (i.e., the input currently selected by the user). Therefore, one skilled in the art would not combine the Shintani patent with the Johnson reference as there would be no apparent benefit and the Shintani patent in this scenario would go against the intended implementation of the Johnson reference.

Alternatively, if one assumes that both the NTSC and DTV signals in Shintani are received from a single input, then the combination of Shintani with the Johnson reference would provide the mapping of both the NTSC and DTV signals, and thus, the combination would teach

away from selecting and mapping a single modulation scheme. Therefore, the Johnson and Shintani combination fails to teach each limitation as recited in claim 1, and thus, does not render at least claim 1 obvious.

Thus, claim 1 is not obvious over the applied combination of the Johnson and Shintani references in that the combination fails to teach each limitation as recited in claim 1, and further, one skilled in the art would not combine the Shintani patent with the Johnson reference because there would be no motivation to combine due at least to a lack of benefit or would go against the intended implementation of the Johnson reference.

Similarly, with regard to at least claim 9, the combination of the Johnson reference and the Shintani patent fails to teach each limitation as recited. More specifically, the above combination fails to describe or suggest at least selecting a signal of a plurality of signals to evaluate and limiting the channel map to the signal and not performing a full auto-program. The Office Action suggests that the Johnson reference teaches this limitation (Office Action, pg. 2-3). However, the Johnson reference fails to discuss or suggest selecting a signal of plurality of signals to evaluate and limiting the channel map to the signal. Instead, the Johnson reference describes “performing a channel search on a television having multiple signal inputs” where “a channel search is performed only on the currently selected signal input of the television rather than on all signal inputs” (Johnson, pg. 2, lns. 25-26), where each signal input receives multiple signals (Johnson, see at least pg. 3, lns. 30-31 and pg. 4, lns. 1-7). Therefore, the Johnson reference describes selecting a signal input and performing a search on all signals received by that input (see at least pg. 5, lns. 29-31 and pg. 6, lns. 1-4). As such, the Johnson reference does not describe or suggest selecting a signal of a plurality of signals to evaluate and further does not teach or suggest limiting the channel map to the signal as recited in claim 9.

Further, the Shintani reference does not describe limiting the channel map to a single signal as recited in claim 9. The Shintani reference describes a system that provides “autoprogramming for a television receiver which is capable of receiving conventional analog television signals, as well as digital television signals” (col.2, lns. 31-34), where both signals, and

thus multiple signals, are processed such that “[o]nce a channel map containing valid NTSC channels is completed, block 76, autoprogramming of the DTV channels begins in section 84 of the flow diagram” (Shintani, col. 4, lines 57-59). Therefore, the Shintani patent does not limit channel mapping to a single signal but instead maps both signals (e.g., NTSC and DTV inputs). As such, both the Johnson and Shintani references fail to describe or suggest, selecting a signal of a plurality of signals and limiting the channel map to the signal as recited in claim 9. Additionally as demonstrated above, one skilled in the art would not combine the Shintani patent with the Johnson reference. Therefore, the combination of the Johnson reference and the Shintani reference fails to render at least claim 9 obvious.

Further, one skilled in the art would not combine the Shintani patent with the Johnson reference in that there is no motivation to combine and further, the Shintani patent teaches away from such a combination. The intended purpose of the Shintani patent is to map both NTSC and DTV channels and further describes that “the autoprogram routine 80 first maps NTSC channels in order to decrease the time required to autoprogram” (col. 4, lns. 42-43) and after mapping NTSC it maps the DTV channels. The suggested motivation for combining the Johnson reference and the Shintani patent would only exist if the Johnson reference would map multiple signals on a single input which teaches directly away from limiting mapping to a single signal as claimed. As such, the motivation suggested by the Office Action for combining the above references is in error with respect to the suggested combination, specifically selecting a single signal and limiting the auto-programming to the single signal.

Moreover, the combination of the Johnson and Shintani references fails to render at least claim 17 obvious. For example, neither the Johnson nor the Shintani reference teaches at least a processor coupled with the tuner, wherein the processor receives the first signal and performs a channel mapping of the first signal while limiting the channel mapping to the first signal and not completing a full channel mapping of the other signals received through the plurality of inputs as recited. As discussed above with respect to at least claim 9, neither the Johnson nor the Shintani reference describes or suggests limiting the channel mapping to a first

signal. Further, one skilled in the art would not combine the applied references as demonstrated above. The applied combination fails to teach each limitation as recited in at least claim 17. Thus, a *prima facie* case of obviousness has not been established, and therefore, claim 17 is allowable over the applied combination.

Claims 1-8, 10-16 and 18-20 depend upon allowable claims 1, 9 and 17 respectively. As such, claims 1-8, 10-16 and 18-20 are also not obvious over the Johnson reference in view of the Shintani reference at least due to their dependence upon allowable claims 1, 9 and 17.

Further regarding at least claim 2, the applied combination fails to teach at least limiting “the full auto-program includes terminating an auto-program after evaluating only the first modulation scheme without completing an auto-program for any other modulation scheme” as recited in claim 2. As demonstrated above with respect to claims 1, 9 and 13, the applied combination does not teach limiting the auto-program to a single modulation scheme. Further, the applied references teach away from limiting the auto-programming to a single modulation scheme. For example, the intended purpose of the Shintani patent is to map both NTSC and DTV channels and further describes that “the autoprogram routine 80 first maps NTSC channels in order to decrease the time required to autoprogram” (col. 4, lns. 42-43) and after mapping NTSC it maps the DTV channels. The suggested motivation for combining the Johnson reference and the Shintani patent would only exist if the Johnson reference would map multiple modulation schemes on a single input which teaches directly away from limiting mapping to a single modulation scheme as claimed. Therefore, the motivation suggested by the Office Action for combining the above references is in error with respect to the suggested combination, specifically selecting a single signal and limiting the auto-programming to a single modulation scheme, and thus, at least claim 2 is not obvious in view of the applied combination.

Furthermore, at least with respect to claim 4, the combination of the Johnson reference and the Shintani patent fails to teach at least comparing previously defined channel assignments of the channel map with the identified channels during the scanning, and “initiating

the tuning, the determining and the recording when a difference is detected during the comparing the channel assignments” (claim 4). The Office Action specifically states that the combination “is silent with respect to comparing the scanned channel with the mapped channels and initiating the tuning, the determining and recording when a difference is detected” (Office Action pg. 3). The Office Action, instead takes official notice that “it is notoriously well known in the art to utilize the particular usage of comparing current channel information to mapped information when updating in order to efficiently maintain current information” (office action, pg. 3). Applicants respectfully traverse the official notice taken. It is not well known and one skilled in the art would not appreciate the benefit of at least the “initiating the tuning, the determining and the recording when a difference is detected during the comparing the channel assignments” as recited in claim 4. The limitations recited in at least claim 4 are not well known in light of the other limitations recited in claim 4, and further the Office Action fails to provide evidence suggesting that the suggested limitations are well known in the art. Applicants respectfully request that documentary evidence demonstrating such common knowledge be provided to support the assertion being notoriously well known to “initiat[e] the tuning, the determining and the recording when a difference is detected during the comparing the channel assignments” in light of the other limitations of claims 1 and 4. As such, Applicants respectfully submit that claim 4 is not obvious.

Claims 5 and 6 are also rejected based on the official notice to compare current channel information to mapped information when updating (office action, pg. 3). Applicants respectfully traverse such official notice in that the claim does not simply recite comparing mapping information when updating. Further, it is not well know in the art and one skilled in the art would not appreciate the benefits of, for example, “scanning a signal ... comparing channel assignments of the channel map with identified channels during the scanning; and initiating the tuning and the recording ...” as recited in claim 5, or “identifying a broadcaster ... comparing the broadcaster ... and initiating the tuning and the recording ...” as recited in claim 6. Applicants respectfully request that documentary evidence demonstrating such common knowledge be

provided to support the assertion that the limitations of claims 5 and 6 are notoriously well known.

Regarding at least claims 13-16, the office action cites column 4, lines 21-41 of Shintani suggesting that the Shintani patent describes for example “determining whether a channel map exists.” Applicants respectfully submit that the cited portion of Shintani does not describe at least making a determination whether a channel map exists, and instead points to Figures 5-7 of Shintani that demonstrate that there is no suggestion of making a determination of whether a channel map exists. Therefore, the combination of Johnson and Shintani fails to teach each limitation of claim 13.

Similarly with respect to at least claim 14, neither the Johnson nor Shintani references describe at least “determining if the determined broadcaster is different ... and initiating the generating of the channel map for the entire selected signal when the determined broadcaster is different than the recorded broadcaster”. Therefore, claim 14 is also not obvious over the applied combination.



**CONCLUSION**

Applicants respectfully submit that the above remarks demonstrate that the pending claims are in a condition for allowance. Therefore, a Notice of Allowance is respectfully requested.

Respectfully submitted,

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